Hull Morocco

JOURNAL

OF THE

New England Water Works Association.

VOLUME XIV.

SEPTEMBER, 1899, TO JUNE, 1900.

PUBLISHED BY

BOARD OF EDITORS.

Junior Editor's Office, 8 Mt. Vernon St., Boston, Mass.

INDEX.

A.

PAGE

"A Few Words upon Water Filtration." H. W. Clark 82

ADDRESS

Of Welcome, by Mayor McGuire, of Syracuse 176

President's. F. F. Forbes 180

ALBANY, N. Y.

Visit to Filtration Plant 174

"The Albany Water Filtration Plant." Allen Hazen 291

ALTOONA, PA.

"Flood-water Channel of the Altoona, Pa., Reservoirs." Charles W. Knight 151

Andover, Mass., Pumping Engines 163

Assessment of Water Rates 133

"ASTERIONELLA — Its Biology, its Chemistry, and its Effect on Water Supplies." G. C. Whipple and D. D. Jackson 1

Attendance at Meetings 88, 174, 286, 287, 289, 373

B.

BAILEY, GEORGE I.

"The Care of Fire Hydrants in Winter" 116

Discussion on Albany Filtration Plant 329

BANCROFT, LEWIS M. Discussions by 130, 150

BASSETT, GEORGE B. Discussion by 127

BEALS, JOSEPH E. Discussion by 128

Biology of Asterionella 1

BROWNELL, E. E.

"Electrolysis from Facts and Figures" 363

BUFFALO, N. Y.

"The Buffalo, N. Y., Water Works." Louis H. Knapp 206

C.

"Care of Fire Hydrants in Winter." George I. Bailey 116

CHACE, GEORGE F.

"A Rumpus in Collecting Meter Rates — Causes and Consequences" 230

Channel, The Flood-water, of the Altoona Reservoirs 151

"CHLAMYDOMONAS in Spot Pond." Frederick S. Hollis and Horatio N. Parker 26

CLARK, HARRY W.

"A Few Words upon Water Filtration" 82

COFFIN, FREEMAN C.

"Covered Reservoirs and their Design" 252

PAGE

COGGESHALL, R. C. P. Discussion by 228
Collection of Water Rates 133, 230
"Comparison between High and Low Duty Pumping Engines on a Small Water Works Plant." John E. Smith 163
Consumption of Water, Glasgow 249
CONANT, HENRY W. Obituary 193
Constitution, Committee on Revision of, Appointed 374
Convention, 18th Annual, at Syracuse, N. Y. 174
COOK, BYRON I.
"Standpipes" 124
Discussion by 122
Cornell University Hydraulic Laboratory 195
"Covered Reservoirs and their Design." Freeman C. Coffin 252
CRANDALL, F. H.
"Methods of Assessment and Collection of Water Rates" . . . 133
Curves, Resistance of 108

D.

DEAN & MAIN.
"A Test of the New Pumping Engine at Waltham, Mass." . . . 171
DENNETT, NATHANIEL. Obituary 375
Design of Covered Reservoirs 252
Design of Distribution Systems 97

E.

EAST PROVIDENCE, R. I., Filter Plant 345
Election of Members 89, 90, 179, 287, 288, 290, 374
Election of Officers 188
"Electrolysis from Facts and Figures." E. E. Brownell 363
Examination of Public Water Supplies 65
Excursion 92, 375
Exhibits at Syracuse Convention 175

F.

Filters, Sand and Mechanical 32
Filtration 82
"Filtration, Mechanical." E. B. Weston 333
Filtration Plant, Albany, N. Y. 291
Finance Committee, Report of 184
Fire Hydrants, Care of, in Winter 116
FISH, J. B. Discussions by 102, 216
FITZGERALD, DESMOND. Discussion by 49
"Flood-water Channel of the Altoona, Pa., Reservoirs." Charles W. Knight 151
FORAN, GEORGE J. Discussion by 166
FORBES, F. F.
President's Annual Address 180
Discussion by 217

PAGE
Foss, W. E. Discussion by 368
FUERTES, E. A. "The Hydraulic Laboratory of Cornell University" 195
FULLER, GEORGE W.
"Relative Applicability of Sand and Mechanical Filters" . . . 32
Discussion by 357

G.

GALE, JAMES M. "The Glasgow Water Works" 240
GILBERT, J. C. Discussion by 238
GLASGOW, Scotland, Water Works 240
GOODNOUGH, X. H. "Some Results of the Systematic Examination of the Water of Public Water Supplies" 65

H.

HASKELL, JOHN C. Discussions by 81, 101, 128, 216, 225
HAWLEY, W. C. Discussions by 127, 146
HAZEN, ALLEN.
"The Albany Water Filtration Plant" 291
Discussions by 43, 102, 147, 219
HILL, WILLIAM R.
"The Method of Removing Organisms from the Water in the Distributing Reservoir of the City of Syracuse, N. Y." 213
Discussion by 223
HODGKINS, H. C. Discussion by 219
HOLLIS, FREDERICK S.
"Chlamydomonas in Spot Pond." (With H. N. Parker) . . . 26
"On Removing Organisms from Water — A Discussion" . . . 221
Discussion by 64
Hopkinton, Mass., Filters 50
Hydrants, Care of, in Winter 116
"Hydraulic Laboratory of Cornell University." E. A. Fuertes . . . 195

J.

JACKSON, DANIEL D.
"Asterionella — Its Biology, its Chemistry, and its Effect on Water Supplies." (With G. C. Whipple) 1
Jewell Mechanical Filter 334

K.

KUICHLING, EMIL. Discussions by 101, 123, 143
KNAPP, LOUIS H.
"The Buffalo, N. Y., Water Works" 206
KNIGHT, CHARLES W.
"Flood-water Channel of the Altoona, Pa., Reservoirs" 151

L.

"Laboratory, Hydraulic, of Cornell University." E. A. Fuertes . . 195

M.

PAGE

MARTIN, A. E. Discussion by 128
McKENZIE, THEODORE H. Discussions by 102, 127, 145
Mechanical Filters 32
"Mechanical Filtration." Edmund B. Weston 333
Meetings, Attendance at 88, 174, 286, 287, 289, 373
Members, Election of 89, 90, 179, 287, 288, 290, 374
Meter Rates 230
"Method of Removing Organisms from the Water in the Distributing Reservoir of the City of Syracuse, N. Y." William R. Hill . 213
"Methods of Assessment and Collection of Water Rates." F. H. Crandall 133
MORSE, CHARLES H. Discussion by 367
MORSE, JAMES W. Obituary 193
MURPHY, CHARLES F. Obituary 193

N.

New England Gas and Coke Co. — Description of Works 93
Nominating Committee, Appointment of 90
Norfolk, Va., Filter Plant 347

O.

OBITUARY NOTES.
Conant, Henry W. 193
Dennett, Nathaniel 375
Morse, James W. 193
Murphy, Charles F. 193
Winship, Horace B. 193
Odors and Tastes in Water Supplies 54, 213
Officers, Election of 188
"On Removing Organisms from Water — A Discussion." Frederick S. Hollis 221
Outing of the Association, June, 1899 92
"Organisms which Cause Unpleasant Odors and Tastes in Water Supplies." William T. Sedgwick 54
Organisms, Removing, from Water 213, 221

P.

PARKER, HORATIO N.
"Chlamydomonas in Spot Pond." (With Frederick S. Hollis) . 26
Discussions by 80, 226
Pegan Filters 50
Presentation to Mr. and Mrs. W. R. Hill 191
President's Address. F. F. Forbes 180
Presidents of the N. E. Water Works Association 194
Proceedings 88, 174, 286, 373
Public Water Supplies, Examination of the Water of 65
Pumping Engines 163, 171

R.

PAGE

Rainfall near Glasgow, Scotland 250
"Relative Applicability of Sand and Mechanical Filters." George W. Fuller 32
Removing Organisms from Water 213, 221
Reports 184, 186, 187
Reservoirs, Covered, Design of 252
Revision of Constitution, Committee on, Appointed 374
ROME, GA., Filter Plant 348
"Rumpus in Collecting Meter Rates—Causes and Consequences." George F. Chace 230
RUSSELL, A. N. Discussion by 148

S.

Sand and Mechanical Filters 32
SEDGWICK, WILLIAM T.
"Organisms which Cause Unpleasant Odors and Tastes in Water Supplies" 54
Discussions by 23, 30, 52, 78
SMITH, JOHN E.
"Comparison between High and Low Duty Pumping Engines on a Small Water Works Plant" 163
"Some Notes on the Design of Water Works Distribution Systems." Gardner S. Williams 97
"Some Results of the Systematic Examination of the Water of Public Water Supplies." X. H. Goodnough 65
Spot Pond, Chlamydomonas in. F. S. Hollis and H. N. Parker . . . 26
"Standpipes." Byron I. Cook 124
Swamp Drainage 78
Subsidence 348
SULLIVAN, J. C. Discussion by 144
SWARTS, GARDNER T. Discussion by 354
SYRACUSE, N. Y.
Convention at 174
Removing Organisms from Water 213

T.

Tastes and Odors 54, 213
TAUNTON, MASS., Collecting Meter Rates 230
"Test of the New Pumping Engine at Waltham, Mass." Dean & Main 171
THOMAS, W. H. Discussion by 147
Treasurer, Report of 186

U.

UROGLENA 79

W.

PAGE

WALKER, CHARLES K. Discussions by 102, 143
WALTHAM, MASS., Test of Pumping Engine 171
Water, Consumption of, in Glasgow, Scotland 249
Water Filtration 82
Water Rates 133, 230
WATER SUPPLIES.
  Effect of Asterionella on 1
  Examination of 65
  Tastes and Odors 54
WATER WORKS.
  Buffalo, N. Y. Louis H. Knapp 206
  Distribution Systems, Design of 97
  Glasgow, Scotland 240
WESTON, EDMUND B. "Mechanical Filtration" 333
WESTON, ROBERT SPURR. Discussions by 225, 360
WHIPPLE, GEORGE C., and D. D. Jackson.
  "Asterionella — Its Biology, its Chemistry, and its Effect on Water Supplies" 1
WHITNEY, JOHN C. Discussion by 148
WILLIAMS, GARDNER S.
  "Some Notes on the Design of Water Works Distribution Systems" 97
  Discussion by 123
WINSHIP, HORACE B. Obituary 193
WOONSOCKET Standpipes 124